



SEQUENCE LISTING

<110> Glassman, Kimberly F.
Gordon-Kamm, William J.
Kinney, Anthony
Lowe, Keith S.
Nichols, Scott E.
Stecca, Kevin L.

<120> RECOMBINANT CONSTRUCTS AND THEIR USE IN REDUCING GENE EXPRESSION

<130> BB1449 US NA

<140> US/09/887,194

<141> 2001-06-22

<160> 36

<170> Microsoft Office 97

<210> 1

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ELVISLIVES PCR primer

<400> 1

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30

<210> 2

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer for amplification
of soybean Fad2-1

<400> 2

ggaaaaccat gcaaccatt ggtacttgct

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<210> 3

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer for amplification
of soybean Fad2-1

<400> 3

agcaagtacc aatgggttgc atggttttcc

30

<210> 4

<211> 30

<212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1

 <400> 4
 agcaagtacc aatggatact tggtcctgta 30

 <210> 5
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1

 <400> 5
 tacaggaaca agtatccatt ggtacttgct 30

 <210> 6
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 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: pKS102 linker

 <400> 6
 gaattcgcgg ccgcatggga ggtagaggtc 30

 <210> 7
 <211> 34
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of Cer3

 <400> 7
 ggcgcgccaa gcttggatcc gtcgacggcg cgcc 34

 <210> 8
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of Cer3

 <400> 8
 gaattcgcgg ccgcggcacg agatttgagg 30

<210> 9
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of Cer3

 <400> 9
 ttgcccaatg tttatgcata tgtagaactg 30

 <210> 10
 <211> 30
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: PCR primer for amplification
 of Cer3

 <400> 10
 cagttctaca tatgcataaa cattgggcaa 30

 <210> 11
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: ELVISLIVES complementary
 region of pKS106 and pKS124

 <400> 11
 gaattcgcgg ccgcggcacg agatttgagg 30

 <210> 12
 <211> 80
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: ELVISLIVES complementary
 region of pKS106 and pKS124

 <400> 12
 cggccggagc tggatcatctc gctcatcgtc gagtcggcgg ccgcccgactc gacgatgagc 60
 gagatgacca gctccggccg 80

 <210> 13
 <211> 154
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: ELVISLIVES complementary region of pKS133

<400> 13
 cggccggagc tggatcatctc gctcatcgtc gagtcggcgg ccggagctgg tcatctcgct 60
 catcgtcgag tcggcggccg ccgactcgac gatgagcgag atgaccagct ccggccgccg 120
 actcgacgat gagcgagatg accagctccg gccg 154

<210> 14
 <211> 92
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: ELVISLIVES PCR primer

<400> 14
 gaattccggc cggagctggt catctcgctc atcgtcgagt cggcggccgc cgactcgacg 60
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<210> 15
 <211> 15
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: ELVISLIVES PCR primer

<400> 15
 gaattccggc cggag 15

<210> 16
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 <212> DNA
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<220>
 <223> Description of Artificial Sequence: PCR primer for amplification of soybean Fad2-1

<400> 16
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<210> 17
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR primer for amplification of soybean Fad2-1

<400> 17
 gaattcgccg ccgcttaatc tctgtccata gtt 33

<210> 18
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1, 5'-end

 <400> 18
 gaattcgcg cgcgccaatc tattgggttc tc 32

 <210> 19
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1, 3'-end of 25 nucleotide fragment

 <400> 19
 gaattcgcg cgcgaacctt ggagaaccca at 32

 <210> 20
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1, 3'-end 75 nucleotide fragment

 <400> 20
 gaattcgcg cgcggcatg gtgaccacac tc 32

 <210> 21
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1, 3'-end of 150 nucleotide fragment

 <400> 21
 gaattcgcg ccgctgagaa ataagggact aa 32

 <210> 22
 <211> 32
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1, 3'-end 300 nucleotide fragment

<400> 22
 gaattcgcg cgcgcgagtgt gacgagaaga ga 32

<210> 23
 <211> 32
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Fad2-1, 3'-end 600 nucleotide fragment

<400> 23
 gaattcgcg cgcgtttctga tgaatcgtaa tg 32

<210> 24
 <211> 1717
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: ELVISLIVES complementary
 region of pBS68

<400> 24
 cggccggagc tggctcatctc gctcatcgtc gagtcggcgg ccgctgagtg attgctcacg 60
 agtgtggtca ccatgccttc agcaagtacc aatggggtga tgatgttgtg ggtttgaccc 120
 ttactcaac acttttagtc ccttatttct catggaaaat aagccatcgc cgccatcact 180
 ccaacacagg ttcccttgac cgtgatgaag tgtttgtccc aaaacaaaaa tccaaagttg 240
 catggttttc caagtactta aacaaccctc taggaagggc tgtttctctt ctcgtcacac 300
 tcacaatagg gtggcctatg tatttagcct tcaatgtctc tggtagaccc tatgatagtt 360
 ttgcaagcca ctaccaccct tatgctccca tatattctaa ccgtgagagg cttctgatct 420
 atgtctctga tgttgctttg ttttctgtga cttactctct ctaccgtgtt gcaaccctga 480
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 tgcccccgag gattaggagg ttccaagaac gcgctgatga gcgagcgcgt aagatgaaga 1620
 agcatcatgc cgtaaagttc agttggattt tcaataaaga attgcttttg tgagcggccc 1680
 ccgactcgac gatgagcgag atgaccagct ccggccg 1717

<210> 25
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Lea promoter 5'-end

 <400> 25
 attaacctca attctttctaa g 21

 <210> 26
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of soybean Lea promoter 3'end

 <400> 26
 ttcaaagatc aattatttcc 20

 <210> 27
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of phaseolin terminator 5'-end

 <400> 27
 catggccacg tgcatgaagt at 22

 <210> 28
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer for amplification
 of phaseolin terminator 3'-end

 <400> 28
 atccctgaag tgtctcattt ta 22

 <210> 29
 <211> 963
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ELVISLIVES complementary region of pKS149

<400> 29

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gcctacgtca ccttcctcgc cggaaacggg gactatgtga aaggtgtcgt tggcttggca 180
aaaggtctga gaaaagtga gagcatgtac cctctggtgg ttgcagtgt acccgatgtt 240
ccccaaagtc accgcaacat tctcacctcc caaggttgca ttgtagaga gattgagccc 300
gtgtaccccc cagagaatca aaccaggtt gccatggcat attacgtcat caactattcc 360
aagctacgta tttgggagtt tgtggagtac agcaagatga tatacctaga cggtgatata 420
caagtttttg acaacattga ccaattggga tcgacctcga gctgatttaa accaccgttg 480
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tgacctttct tgctgggaac ggtgattacg taaaggtgt cgtgggtttg gccaaaggac 600
tgagaaaggc caaaagcatg taccctttgg tggttgcgt gttaccagat gttcctgaag 660
aacatcgtga gattctcaaa tcccaaggtt gcattgtcag ggagattgaa cctgtgtacc 720
ctctgagaaa ccagaccagc ttcgtcatgg cctattatgt catcaattac tccaagctac 780
gtatttggga gttcgtggag tacaagaaga cgatatacct agacggtgac atccaagtat 840
ttggaaacat agaccacttg tttgatctgt gagctgattt aagcgccgcg cgactcgacg 900
atgagcgaga tgaccagctc cggccgcccga ctcgacgatg agcgagatga ccagctccgg 960
ccg 963
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<210> 30

<211> 987

<212> DNA

<213> Glycine max

<400> 30

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atggctccta atatcaccac tgtcaaaacc accatcaccg acgctcaagc caaggctgcc 60
accgatcatg gtcgtgccta cgtcaccttc ctgcgccgaa acggtgacta tgtgaaaggt 120
gtcgttggct tggcaaaagg tctgagaaaa gtgaagagca tgtaccctct ggtgggttgca 180
gtgctacccc atgttcccca agatcaccgc aacattctca cctcccaagg ttgcattgtt 240
agagagattg agcccggtga cccccagag aatcaaacc agtttgccat ggcataattac 300
gtcatcaact attccaagct acgtatttgg gagtttgtgg agtacagcaa gatgatatac 360
ctagacggtg atatccaagt ttttgacaac attgaccact tgtttgactt gcctgataac 420
tacttctatg cgggtgatga ctgtttctgt gagccaactt ggggccacac taaacaatat 480
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cgtgacctcc ttcaaacagt ccaagtcacc cagcccaact cctttgctga acaggatttt 660
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gccatgctgt ggcgtcacc tgagaacggt gagcttgaca aagttaaagt ggttcactac 780
tgtgctgctg ggtctaagcc ttggaggtac actgggaagg aggagaatat ggagagagaa 840
gatatacaaga tgtagtgaa aaagtgtgg gatataatag aggatgagac tttggactac 900
aacaatccac tcaatgtgga taagttcact gcggcactta tggaggttgg tgaagtcaag 960
ttcgtccgtg ccccatctgc tgcttaa 987
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<210> 31

<211> 328

<212> PRT

<213> Glycine max

<400> 31

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Ala Lys Val Ala Thr Asp His Gly Arg Ala Tyr Val Thr Phe Leu Ala
                20                      25                      30
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Gly Asn Gly Asp Tyr Val Lys Gly Val Val Gly Leu Ala Lys Gly Leu
 35 40 45
 Arg Lys Val Lys Ser Met Tyr Pro Leu Val Val Ala Val Leu Pro Asp
 50 55 60
 Val Pro Gln Asp His Arg Asn Ile Leu Thr Ser Gln Gly Cys Ile Val
 65 70 75 80
 Arg Glu Ile Glu Pro Val Tyr Pro Pro Glu Asn Gln Thr Gln Phe Ala
 85 90 95
 Met Ala Tyr Tyr Val Ile Asn Tyr Ser Lys Leu Arg Ile Trp Glu Phe
 100 105 110
 Val Glu Tyr Ser Lys Met Ile Tyr Leu Asp Gly Asp Ile Gln Val Phe
 115 120 125
 Asp Asn Ile Asp His Leu Phe Asp Leu Pro Asp Asn Tyr Phe Tyr Ala
 130 135 140
 Val Met Asp Cys Phe Cys Glu Pro Thr Trp Gly His Thr Lys Gln Tyr
 145 150 155 160
 Gln Ile Gly Tyr Cys Gln Gln Cys Pro His Lys Val Gln Trp Pro Thr
 165 170 175
 His Phe Gly Pro Lys Pro Pro Leu Tyr Phe Asn Ala Gly Met Phe Val
 180 185 190
 Tyr Glu Pro Asn Leu Ala Thr Tyr Arg Asp Leu Leu Gln Thr Val Gln
 195 200 205
 Val Thr Gln Pro Thr Ser Phe Ala Glu Gln Asp Phe Leu Asn Met Tyr
 210 215 220
 Phe Lys Asp Lys Tyr Arg Pro Ile Pro Asn Val Tyr Asn Leu Val Leu
 225 230 235 240
 Ala Met Leu Trp Arg His Pro Glu Asn Val Glu Leu Asp Lys Val Lys
 245 250 255
 Val Val His Tyr Cys Ala Ala Gly Ser Lys Pro Trp Arg Tyr Thr Gly
 260 265 270
 Lys Glu Glu Asn Met Glu Arg Glu Asp Ile Lys Met Leu Val Lys Lys
 275 280 285
 Trp Trp Asp Ile Tyr Glu Asp Glu Thr Leu Asp Tyr Asn Asn Pro Leu
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 Asn Val Asp Lys Phe Thr Ala Ala Leu Met Glu Val Gly Glu Val Lys
 305 310 315 320
 Phe Val Arg Ala Pro Ser Ala Ala
 325

<210> 32
 <211> 1350
 <212> DNA
 <213> Glycine max

<400> 32
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 ctaacatcac caccgttggt gccaatgtca ccaccgagca attacccaag gctcgtggag 180
 gaagtgggcg tgccttcgtg acctttcttg ctgggaacgg tgattacgta aaggggtgctg 240
 tgggtttggc caaaggactg agaaaggcca aaagcatgta ccctttgggtg gttgctgtgt 300
 taccagatgt tcctgaagaa catcgtgaga ttctcaaadc ccaagggttg attgtcaggg 360
 agattgaacc tgtgtaccct cctgagaacc agaccaggt cgccatggcc tattatgtca 420
 tcaattactc caagctacgt atttgggagt tcgtggagta caagaagacg atatacctag 480
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 ctccctctata tttcaatgct ggcattgttg tttatgagcc taatctcgac acctaccgtg 720
 atcttctcca aactgtccaa ctcaccaagc ccacttcttt tgctgagcag gactttctca 780
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 aaggaacaac gtctatggtt ttaatttggg tgaccttctt gtatacaaag ccacatgtga 1260
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 cttaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1350

<210> 33
 <211> 358
 <212> PRT
 <213> Glycine max

<400> 33
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 1 5 10 15
 Asn Leu Phe Leu Ser Ser Tyr Phe Pro Phe Gln Ile Met Pro Pro Asn
 20 25 30
 Ile Thr Thr Val Val Ala Asn Val Thr Thr Glu Gln Leu Pro Lys Ala
 35 40 45
 Arg Gly Gly Ser Gly Arg Ala Phe Val Thr Phe Leu Ala Gly Asn Gly
 50 55 60
 Asp Tyr Val Lys Gly Val Val Gly Leu Ala Lys Gly Leu Arg Lys Ala
 65 70 75 80
 Lys Ser Met Tyr Pro Leu Val Val Ala Val Leu Pro Asp Val Pro Glu
 85 90 95
 Glu His Arg Glu Ile Leu Lys Ser Gln Gly Cys Ile Val Arg Glu Ile
 100 105 110
 Glu Pro Val Tyr Pro Pro Glu Asn Gln Thr Gln Phe Ala Met Ala Tyr
 115 120 125

Tyr Val Ile Asn Tyr Ser Lys Leu Arg Ile Trp Glu Phe Val Glu Tyr
 130 135 140
 Lys Lys Thr Ile Tyr Leu Asp Gly Asp Ile Gln Val Phe Gly Asn Ile
 145 150 155 160
 Asp His Leu Phe Asp Leu Pro Asp Asn Tyr Phe Tyr Ala Val Met Asp
 165 170 175
 Cys Phe Cys Glu Lys Thr Trp Ser His Thr Pro Gln Phe Gln Ile Gly
 180 185 190
 Tyr Cys Gln Gln Cys Pro Asp Lys Val Gln Trp Pro Ser His Phe Gly
 195 200 205
 Ser Lys Pro Pro Leu Tyr Phe Asn Ala Gly Met Phe Val Tyr Glu Pro
 210 215 220
 Asn Leu Asp Thr Tyr Arg Asp Leu Leu Gln Thr Val Gln Leu Thr Lys
 225 230 235 240
 Pro Thr Ser Phe Ala Glu Gln Asp Phe Leu Asn Met Tyr Phe Lys Asp
 245 250 255
 Lys Tyr Lys Pro Ile Pro Asn Met Tyr Asn Leu Val Leu Ala Met Leu
 260 265 270
 Trp Arg His Pro Glu Asn Val Glu Leu Asp Lys Val Gln Val Val His
 275 280 285
 Tyr Cys Ala Ala Gly Ser Lys Pro Trp Arg Phe Thr Gly Lys Glu Glu
 290 295 300
 Asn Met Asp Arg Glu Asp Ile Lys Met Leu Val Lys Lys Trp Trp Asp
 305 310 315 320
 Ile Tyr Glu Asp Glu Thr Leu Asp Tyr Asn Asn Asn Ser Val Asn Val
 325 330 335
 Glu Arg Phe Thr Ser Ala Leu Leu Asp Ala Gly Gly Phe Gln Phe Val
 340 345 350
 Pro Ala Pro Ser Ala Ala
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<210> 34
 <211> 515
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SHH3 complementary
 region of PHP17939

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taaataaccg	tcaaacctga	tgaagagata	aagagatgaa	gacttaagtc	ataacacaaa	360
accataaaaa	acaaaaatac	aatcaaccgt	caatctgacc	aatgcatgaa	aaagctgcaa	420
tagtgagtgg	cgacacaaag	cacatgattt	tcttacaacg	gagataaaaac	caaaaaaata	480
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<210> 35

<211> 1968

<212> DNA

<213> Glycine max

<400> 35

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ctcaccaaac	ccaaccacgc	tctcaaaatc	aaatgttcca	tctccaaacc	ccccacggcg	180
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<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer for amplification of soybean Fad2-1, 3'-end 50 nucleotide fragment

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32